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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

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on November 22, 2010Signature [Signature]Typed or printed name John Ligon

Application Number

10/815,128

Filed

March 31, 2004

First Named Inventor

Teck Hu

Art Unit

2461

Examiner

Dady Chery

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)☒

attorney or agent of record.

Registration number 35,938☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

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Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐

*Total of _____ forms are submitted.

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Form PTO/SB/33 Supporting Reasons
Application S/N 10/815,128

Claims 1, 3-11 are pending in the application. In the Final Office Action, independent claim 1, along with dependent claims 3-4, 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Torsner *et al.* (U.S. Patent No. 7,187,677) in view of Meyer *et al.* (U.S. Published Patent Application No. 2004/0148546). Claims 5-9, which depend, either directly or indirectly, from independent claim 1 were rejected under 35 U.S.C. §103(a) as being unpatentable over Torsner in view Meyer and further in view of Watanabe *et al.* (U.S. Patent No. 6,285,662). The Applicant herewith requests review of such rejections, and submits that, upon such review, the rejection bases cannot be upheld.

The thrust of the invention here is a method for reducing the impact of stalling at a communications receiver due to the non-receipt, or delayed receipt of a packet expected by the receiver to be sent from a transmitting location. As taught by the Applicant, packet data is generally sent from a transmitter to a receiver in sequentially numbered packets. The receipt by the receiver of an out-of-sequence packet provides an indication that a prior-numbered packet has not been received. In the prior art, that determination at the receiver of receipt of an out-of-sequence packet triggers the start of a timer, and the continued non-receipt of the packet through a timeout of the timer duration is taken as an indication that the packet is lost. Upon such a lost-packet determination, the receiver moves on to other packet processing steps which are known in the art. The processing delay related to the wait at the receiver for either receipt of an expected, but delayed or lost packet, or timer timeout, is generally characterized as a stall condition.

However, as the Applicants point out, there are also various conditions that may occur at the transmitter site that are known to the transmitter as conditions that would likely result in a lost-packet event occurring at the receiver. However, while the transmitter site may have immediate or short-term indication of the occurrence of an condition that would result in such a lost-packet event being logged at the receiver -- *e.g.*, that one or more specific packets were not transmitted, the receiver must await timer timeout for the non-received packet before confirming that determination, thus resulting in an unnecessary stall condition at the receiver.

According to the method of the invention, a probability of a stalling condition occurring in respect to a given transmitted packet is determined at the transmitter site, as a function of known system parameters – generally, amount of data being transmitted, number of

retransmission requests from the receiver and transmission error expectation. From that probability, a wait time is determined in respect to an expected event or response. If the event or response does not occur by the end of the wait time so determined, a signal is sent to the receiver, termed a “flush command,” that operates to terminate a stall condition occurring in respect to the apparently-missing packet. In many instances termination of the stall condition through operation of the probabilistically determined flush command will end the stall condition earlier than would have occurred through operation of the timer timeout at the receiver.

As an initial, and very important point, whatever characterization is made as to either Torsner’s or Meyer’s action in addressing a stall condition, it is clear that the determination of a need, or basis, for terminating a stall condition, in both cases, is made solely at the receiver. Indeed, both Torsner and Meyer base the stall-termination decision on the time-out of a stall timer at the receiver, in the same manner as the prior art described in Applicant’s Specification. By contrast, as discussed above, the methodology of the invention operates at the transmitter site to develop probabilities of a stalling condition occurring based on system parameters determined at the transmitter site. Upon a determination at the transmitter site of a likely stalling condition, a signal is then sent from the transmitter site to the receiver, which will generally operate to terminate a stall event occurring at the receiver. Plainly, nothing remotely similar to this transmitter-based operation of the invention methodology is taught or suggested by either Torsner or Meyer.

The Final Office Action acknowledges that the primary reference, Torsner, does not teach the termination of a stall condition at a receiver, based on conditions determined at, and only determinable by, the transmitter. In this context, the Action further posits, however, that Torsner “provides a mechanism that avoids stall at the transmitter, the receiver, or both.” The Action then goes on to cite Meyer as teaching “a method for reducing a probability of a stalling transmission window which considered as stalling condition a[t] the transmitter and a system state parameter at the transmitter.”

As to the apparent point of the Office Action that both Torsner and Meyer teach the termination of a stalling condition occurring at the transmitter, the Applicant contests that any such teaching is provided in either reference – indeed the very concept of a stalling condition is directed to the receipt, or non-receipt of transmitted packets, but the important point is that such a teaching, even if it exists is irrelevant. The invention here is only directed to the termination of

a stalling condition at a receiver, that termination being based on a signal from the transmitter premised on a determination at the transmitter site that a stalling condition at the receiver was likely (from conditions occurring at the transmitter site). In complete contrast, Meyer, like Torsner, is solely directed to a stall condition termination based on events or conditions occurring at, and detected by the receiver.

With respect to the distinctiveness of particular claim limitations over the art of record, the Applicant notes that claim 1 (the only independent claim) includes a limitation directed to the determination of the stall probability parameter described above, and respectfully submits that Torsner cannot reasonably be construed to teach any such probability determination. (While only Torsner is asserted in the Office Action as teaching this limitation, the Applicant further submits that nothing in the teaching of Meyer could reasonably be construed to suggest such a feature.) The particular portion of Torsner cited by the Office Action as supporting its conclusion that Torsner teaches this limitation (col. 3, lines 43-45) is merely a statement of the goal of Torsner's invention ("stall avoidance") and a definition of what constitutes a stall condition for Torsner's approach. Indeed, in the immediately following text, Torsner describes its approach for addressing a stall condition as exactly the timer timeout approach described above and well known in the prior art. Thus, at best, Torsner can be seen to only teach a binary determination that a stall condition exists or does not exist. Plainly such a binary determination does not constitute a probabilistic characterization of the likelihood of a stall occurring – inherently a range of values. The Office Action turns logic on its head here in its assertion that such an on-off resultant in Torsner could somehow be characterized as probabilistic. Even if one stretches the point to assert that a collection of such resultants might be characterized as a statistical distribution, nothing in such a resultant can reasonably be construed to infer a probabilistic determination of any individual resultant -- and plainly, as described above, nothing in the approach of Torsner could reasonably be described as a probabilistic determination of a stall condition.

The applied art also fails to teach the further limitation of independent claim 1 respecting the transmittal of a flush command to the receiver for the purpose of terminating the stall condition. The Office Action asserts that this limitation is taught by a portion of Torsner that contemplates stall-condition termination upon the missing data not being received by the expiration of a timer operated at the receiver. Not only is such a receiver-based timer, as a basis

for terminating a stall condition, part of the prior art already addressed by the Applicant in the background portion of his application, such a receiver-based timer operation cannot possibly be construed as equivalent to a flush command transmitted to the receiver, necessarily from a source apart from the receiver.

The Applicant accordingly submits that claim 1 is clearly patentable over Torsner, Meyer, or any combination thereof. The remaining rejected claims all depend, either directly or indirectly from independent claim 1 and thus must also be patentable on the basis of that dependency. Nonetheless, the Applicant respectfully submits that the limitation of dependent claim 4 – estimating a wait time as a function of the determined stall probability – is plainly not taught by Torsner, as asserted by the Office Action, and that claim is accordingly independently patentable over the cited art. The teaching of Torsner cited by the Office Action as teaching the limitation of claim 4 is solely directed to Torsner's use of a timer at the receiver to terminate a stall condition at timer expiration. Plainly, such a timer-based stall termination has no relationship to a wait time established as a function of a determined stall probability.

In the "Response to Arguments" section of the Final Office Action, the Examiner acknowledges that the claim amendments made in Applicant's prior response (which are the basis for this appeal), and supporting remarks, overcame the prior §102 rejection of those claims as being anticipated by Torsner – at least implicitly accepting Applicant's position that Torsner cannot be construed to teach a termination of a stall condition at a receiver based on the transmission of a "flush" command from the transmitter – the transmission of such a flush command being premised on conditions occurring at, and detected solely by the transmitter. While the Meyer reference is asserted to provide a teaching that can be combined with Torsner to remedy that deficiency in Torsner, the Applicant respectfully submits that no such construction of Meyer can reasonably be made. In the first place, as pointed out above, the entire thrust of Meyer is directed to a stall-condition termination based on events or conditions occurring at and detected by the receiver, primarily a stall-timer expiration. Equally important, nothing in the teaching of Meyer could plausibly be construed to teach the sending of a command from the transmitter to the receiver for stall termination, where the premise for sending of such a command from the transmitter is the determination at the transmitter site of a likelihood of a stall condition occurring at the receiver, based on conditions detected by the transmitter at the transmitter site.

Even if the Review Panel concludes that all of the elements of Applicant's invention can somehow be found in disparate portions of the Torsner and Meyer disclosures, the Applicant submits that no teaching in either of those references, or in any combination of such references, can reasonably be construed to show or suggest the manner of functionally combining those elements according to the method of the invention here. At bottom, the Applicant respectfully suggests that the thrust of the rejection here is a piecing together of isolated elements from unrelated references to replicate the structure of Applicant's invention, using the Applicant's disclosure as a recipe for combining those unrelated elements of the art. Such hindsight reconstruction of Applicants invention is clearly prohibited in US patent law.

The Applicant accordingly believe that his invention, as described above and as presently claimed, is clearly distinguished from the teaching of the art of record here. He respectfully requests that the Review Panel so find.